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## **The Potential of ICT to Contribute to Energy Efficiency and a European Low Carbon Economy**

*Check Against Delivery  
Seul le texte prononcé fait foi  
Es gilt das gesprochene Wort*

Launch of the EICTA report "High Tech: Low Carbon —The role of the European digital technology industry in tackling climate change"

**Brussels, 8 April 2008**

Ladies and Gentlemen,

In March 2007, the European Council placed at the top of the political agenda an integrated policy for energy efficiency in the fight against climate change in order to ensure Europe's long-term commitment to a sustainable, highly energy-efficient and low greenhouse gas emitting economy.

At the World Economic Forum in Davos, at the end of January, leaders of business, government and civil society were called upon to enter into new forms of collaborative and innovative leadership to address the challenges posed by climate change.

At that very same time, Europe adopted a "Climate Action and Renewable Energy package" addressing concretely the challenges posed by this worldwide top priority and by the ambitious targets agreed by the European Council – the triple 20 by 2020 – notably to save 20% of energy consumption by 2020 through energy efficiency, to increase to 20% the share of renewable energies and to reduce by 20% the emission of greenhouse gases.

Energy efficiency is likely to be a significant contributor to cutting carbon emissions by 2020 and the ICT sector, is pivotal in reaching those goals.

I am convinced that ICT has a key role to play in enabling energy efficiency improvements across the whole economy, thus lowering emissions and fighting climate change.

Commission President Barroso made this clear at the CeBiT conference last March by underlining that "...the real gains will come from ICT as an enabler to improve energy efficiency across the economy. ICT matters for energy reduction, especially in transport and the energy intensive sectors. ICT's ability to organize and innovate is a key factor".

### **The challenge of energy efficiency**

Access to secure and affordable energy is fundamental, not only for economic growth, but also for the daily life of European citizens. To achieve sustainable growth, we must increase energy efficiency faster than the rate of economic growth. Over the past decades energy efficiency has improved but we must do more.

As stated in the European Action Plan for Energy Efficiency, Europe must more than double the rate of improvement of energy efficiency.

Decoupling economic growth from energy consumption will require a major effort by making a more efficient use of energy all along the chain – from energy production to consumption – whilst maintaining real sustainable growth.

### **The steps that the ICT sector can take**

ICT is the engine of economic growth and productivity. The new challenge is to make sure ICT can deliver the same gains for energy efficiency. There is a tremendous untapped potential for adding intelligence to components, products, equipment and services and for addressing barriers and market failures.

Firstly, ICT can replace physical products and services with on-line services. This "dematerialisation" is seen not only in business but also in e-Government and e-Health.

Secondly, the ICT sector itself must clean up its own house. The carbon footprint of the ICT sector is small (estimated at 2% of global emissions) but it can be improved. I believe the ICT industries are ready to set a good example. In Europe, British Telecom and Deutsche Telekom have been leading the way in reducing Carbon emissions.

But the real gains will come from the potential offered by ICT as an enabler to reduce the other 98% of CO2 emissions.

In the construction sector, heating, cooling and lighting of buildings alone account for 40% of all energy consumed in Europe. User-friendly ICT-based energy monitoring and optimisation systems can intelligently connect more energy efficient components and accelerate the changes in consumer's behaviour.

The broad adoption of new lighting technologies (LED and OLED) could save 30% of today's consumption by 2015 and up to 50% by 2025 leading to the corresponding reduction in CO2 emissions.

In energy generation, overall potential savings of up to 40% are considered possible in the energy distribution and storage industry. ICT could make a major contribution. Computerised "virtual power plants" will in the future optimise demand and production by smoothing peaks and facilitating trade between grid operators.

Energy-hungry industrial processes and the whole area of transport are also candidates for potential savings.

### **European Commission actions**

In the ICT sector, the European Commission wants to explore voluntary agreements with industry to raise energy efficiency and to reach carbon neutrality well before 2020. We all need to do our share of the job if we really want to achieve concrete results.

From my side, I have strengthened the efforts in research and am still working on a better exploitation of the opportunities available. I have made ICT for energy efficiency a priority in the part of Competitiveness Innovation Programme (CIP) under my responsibility and I have also proposed to increase by 48% the budget for ICT and energy efficiency in the ICT 2009-2010 work programme under the 7<sup>th</sup> EU Framework Programme for Research and Development (FP7), bringing it to 40 Mio€.

### **Research**

We are using the instrument of FP7 to focus not only on reducing the energy intensity of ICT components, sub-systems and products but also to explore technologies such as quantum and photonic-based systems which could reduce energy consumption for lighting by 30 to 50% by 2015.

In order to further develop the enabling contribution of ICT to energy efficiency a new research area has been initiated in the ICT theme focusing on topics that I mentioned earlier: more intelligent buildings and power generation and distribution.

Energy, transport and production technologies, cleaner and less power consuming cars are addressed in other FP7 themes.

## **Competitiveness and Innovation Programme**

Increasing research however is not enough. It is also essential to foster the deployment of ICT-based solutions.

That is why we are funding – in addition to networking activities – large-scale pilot projects on energy efficient public buildings and spaces, including lighting.

For example, you all know that cities consume over 75% of the world's energy and produce 80% of its greenhouse gas emissions. In order to validate and test ideas in the two topics mentioned, cooperation with and input from urban agglomerations is considered a priority.

## **Future EU Policy on ICT for Energy Efficiency**

A Strategic Commission Communication on Energy Efficiency through Information and Communication Technologies will be adopted very soon. It will serve as a basis for the launching of a consultation and partnership process. I am counting on your contribution and on your commitment.

Europe needs all stakeholders to sign up to the goal of better energy efficiency to fight against climate change and to achieve sustainable growth. I invite EICTA and its members to mobilise your constituencies, to promote and support the adoption of energy efficient ICT-based solutions in your respective areas. With smart use of smart technologies, we can all be winners in the transition to an energy-efficient, sustainable knowledge based society.

I am encouraged to see that the EICTA report expresses first of all your strong commitment and, secondly, delighted that it is in line with our strategy. The paths you explore are most interesting and worth pursuing. Yes, you are right, in this whole problematic, technology matters!

What is now at stake is not only our economy but the well being and the future of our society

Thank you for your attention.